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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/586,654

08/14/2006

Yasuo Hirooka

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ALEXANDRIA, VA 22320-4850

EXAMINER

KRAMER, DEAN J

ART UNIT

PAPER NUMBER

3652

MAIL DATE

DELIVERY MODE

06/12/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/586,654	Applicant(s) HIROOKA ET AL.	
	Examiner Dean J. Kramer	Art Unit 3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5,6 and 8-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The amendment filed May 1, 2009 and the remarks presented therewith have been carefully considered and are deemed to overcome the rejections set forth in the previous Office action. However, a new non-final rejection based on the amended claims follows below.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 9, 11, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how claim 9 further limits claim 2 since all of the recited structure of claim 9 has already been set forth in claim 1 from which claim 2 depends. Similarly, claims 11 and 14 appear to be exact duplicates of claims 5 and 6, respectively.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1, 2, 6, 8, 9, 13, 14, 16, and 20, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebbing et al. (6,155,773) in view of Shendon et al. (6,513,848).

The Ebbing et al. patent shows a substrate holding device (best shown in Figure 6) comprising a pair of fixed guiding members (68,70) at the distal end of the device and a pair of moveable members (90) disposed directly opposite the guiding members at the proximal end of the device. The patent to Ebbing et al. does not specifically disclose a support between the moveable members at the proximal end of the device as is called for in claim 1 of the instant application.

However, the patent to Shendon et al. shows an embodiment in Figures 10 and 11 comprising a pair of moveable members (111) flanking a relatively large fixed support (unreferenced but shown in phantom lines in Figs. 10 and 11). The Shendon et al. patent also shows (see Figs. 8 and 9) its pair of moveable members (110) as having a pressing surface (112) that substantially matches the contour of the wafer being gripped (see col. 8, lines 14-17).

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form a relatively large fixed support between the movable members of Ebbing et al. as taught by Shendon et al. in order to provide additional support for a wafer prior to actuating the moveable members. Further, it would have been obvious to shape the pressing surface of these moveable members with an arcuate shape that substantially matches the contour of a wafer similar to that shown in the Shendon et al. patent as an additional means of centering the wafer.

Regarding claim 20, it would have been an obvious choice of mechanical design to form at least the resulting large fixed support approximately 60 millimeters in order to sufficiently support wafers with or without a segment cut off its circumference.

5. Claims 5, 10-12, 15, and 17-19, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Ebbing et al. in view of Shendon et al. as applied to claims 1, 2, 6, 8, 9, 13, 14, 16, and 20 above, and further in view of Rogers et al. (7,300,082).

The patent to Rogers et al. shows an embodiment in Figure 8A wherein its movable members each have a downwardly oriented pressing surface (220) for creating a more secure clamping force against a wafer's edge.

It would have been obvious to a person having ordinary skill in the art to form the pressing surface of each moveable member of the modified Ebbing et al. device, as was presented supra, with a downwardly sloping surface as taught by Rogers et al. in order to more reliably grip a wafer during the transport thereof.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dean J. Kramer whose telephone number is (571) 272-6926. The examiner can normally be reached on Mon., Tues., Thurs., Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on (571) 272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dean J Kramer/
Primary Examiner, Art Unit 3652

djk
6/11/09